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Can A Satellite Read Your Thoughts? - Physics Revealed

Tue Jul 13, 2010 4:28 PM EDT

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By [Deep_Thought](#)

Note (20th Feb 2011): The figures presented in this article have been revised. The current version can be found [here](#).

Most people, when they hear of Synthetic Telepathy, especially by means of satellite, jump to the immediate conclusion that such things are not possible. If they were, we would have heard of them, right?

Looking back at the history of classified technology, places and events shows a wide range of time periods where things are kept secret. Stealth aircraft are just one example, the [F-117](#).

[Nighthawk](#) was not publicly acknowledged until 1988 although it had been in operation for over six years. Documents sealed for "National Security" purposes can be hidden away for up to [70 years](#). So, it would be really surprising if certain technologies were not classified as you read this.

Whilst you can hide certain technology to an extent, what becomes very difficult to hide as time passes is the physics of a given technology. An example would be a nuclear device. Whilst you could, in theory, hide a given nation's development of a nuclear bomb, the physics still shows that nuclear fission/fusion is possible. Thus, if you weigh up the various factors that are required to create a nuclear device, you can make an educated guess as to the likelihood a nation has such technology.

With this in mind, I decided to look at the transceiver and the physics involved in that process. Its all well and good claiming that a satellite can read thoughts, but how does the physics stack up?

Does The Brain Transmit Like A Radio

To understand this, we first need to look at [how antennas work](#), its relationship to neurons and what similarities, if any, exist. Coming from a QED angle, if you take a look at figure 1 we can get a better viewpoint of how a moving charge creates an EM wave. As the electrical field moves towards the bottom of the picture, virtual photons are radiating magnetic energy into free space. As per Maxwell's equations, a changing magnetic field will induce a changing electrical field resulting in a free standing EM wave. This is a [good applet](#) that shows how a moving charge produces electromagnetic radiation.

So, what is the connection with neurons? Information is

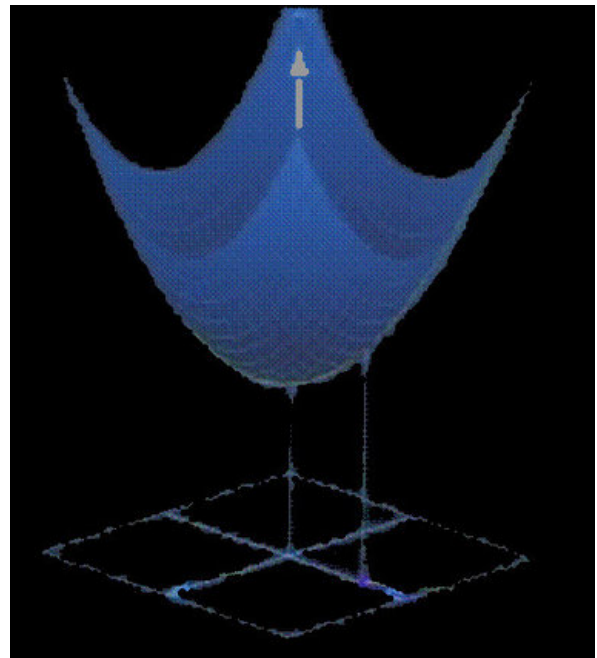


Figure 1: QED viewpoint of a moving charge.

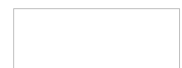


Figure 2: Formula to calculate the power density in the far field at a given radius.



processed by the brain in the form of electro-chemical interactions. That is, every perception you have sends electrical signals to the brain that are routed to specific areas that deal with them. The neuron has a long strand called an axon, along this axon propagates an electrical charge. With a resting potential of -70mV an **action potential** moves along the axon, in a millisecond, elevating it to a voltage of +30mV which drops off over a few milliseconds. This makes an action potential a form of **alternating current** with an almost triangular waveform. As such, this produces a very weak form of modulated electromagnetic radiation or radio source.

For the astute reader, it means that a neuron is a type of transducer.

Can You Hear Me Now?

So, whenever you have a thought, feeling, speak or our heart beats, tiny little radio emissions are being made by the brain that emanate into free space. The real questions are, given modern technology can these signals be detected and does a method exist of associating them with particular functions? That is, whilst signals in this power range may be detectable, is there something unique about the signals that can be used to differentiate between different roles?

Let's deal with first problem, detection. I tracked down an example of satellite sensitivity to radio frequencies that should act as a baseline. The following data is from NASA's Jet Propulsion Lab:

The sensitivity of our deep-space tracking antennas located around the world is truly amazing. The antennas must capture Voyager information from a signal so weak that the power striking the antenna is only 10 exponent -16 watts (1 part in 10 quadrillion). A modern-day electronic digital watch operates at a power level 20 billion times greater than this feeble level.

So, does the brain emit radio waves at a power level greater than 0.000000000000001 Watts after several hundred miles?

To answer this we must turn to this **scientific paper**. From this paper, we can observe the charge per square centimeter which is around 22-29 microamperes. We can perform some rough math on these figures that will reveal the answer to our question. The equations are rough and leave out a lot of additional factors, that said, the final figures will not be far from the truth and will probably under-estimate the capabilities of current classified technology.

So, using the formula Watts = Voltage x Amperage, we get the following peak power:

$$0.003 \text{ V} \times 0.0000029 \text{ A} = 0.000000087 \text{ Watts/cm}^2$$

So, at source, the weak radio emission of a cubic centimeter of brain matter is well within the detectable limits of the satellite. We now need to project that into space and determine the signal strength at orbital distances. To do this, we need to apply the **inverse square law** to the emission and the formula is provided in figure 2. So, the formula would be (disregarding gain):

$$\begin{aligned} & (0.000087 \text{ Watts/m}^2) / (4\pi \times (500000\text{m}^2)) = \\ & 0.000087 / 3141592653589.7932384626433832795 = \\ & 2.7692960097989788423785774826817\text{e-}17 \text{ Watts/m}^2 \end{aligned}$$

This is fine, its somewhat larger than our baseline, but nothing that cannot be accounted for. Firstly, we need to identify the frequency range. As noted before, due to Maxwell's equations the motion of the action potential results in a changing electrical field. In turn, this results in a changing magnetic field and thus a free space radio wave.

Typical frequencies for an action potential are in the range of 0-500Hz which will result in free space waves in this range, known as the **SLF** and **ELF Band**. This somewhat matches up with experimental evidence that shows **humans do broadcast signals on the ELF band**. This scientific paper **and others** show that SLF/ELF reception gear and antennas are of a practical form factor to be placed upon a satellite. An array of such satellites (see figure 3) would use the principle of **aperture synthesis** to create a type of space-borne **Very Large Array**.

Given that the Ohio State's **radio telescope** had a sensitivity, in 1977, of 2×10^{-22} W m⁻² per channel and the VLA is described as being 100 times as sensitive, any signals we are producing could be heard loud-and-clear by a space-borne array. This arrangement would provide for a very high resolution of brain activity.

What's more, the development time line for this technology places the capability to detect brainwaves as far back as the early 1970's. Given an average lifespan for a satellite as 5 years, with an initial deployment during 1970, the satellite technology would be in its 8th generation today.

So, we can detect the signals but now it must be processed.

Information Overload

There is a significant difference between detecting a signal, or signal range, and being able to process that information and make sense of it. To do this, we need to find unique patterns in a signal that would allow us to isolate individuals and isolate neural activity we can categorize.

The three main characteristics of a wave are its amplitude, frequency and phase. To be able to detect a single person, in a crowd for example, we need to find something unique about the waves they are emanating. This allows us to eliminate the noise and only have information regarding a single person. There are a number of ways this can be achieved. In a satellite



Figure 3: ELF satellite array.

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...and only have information regarding energy pattern. Here, the element of time, the rate of neuronal firing, the array, examining the timing of signals received across the array, on a given frequency range, will provide you with both the location (in 3D) and the **coding of the neuron structure**. From this, the function of the cluster can be inferred by comparison with generalizable signals in a database.

A cluster of neurons will broadcast across a given range of frequencies, slightly out of phase and with slight variation in amplitude. The characteristics are dictated to by the rate of neuronal firing, the timing of neuronal firing and the amount of energy in the neuron at the time. Given that neurons are biological and the unique structure of a cluster, the statistical likelihood of the wave characteristics being identical between different people would be quite low. Thus, from a technical viewpoint, pattern analysis lies at the heart of the development of a lexicon.

Now, we have our signals, we know what they mean, all that's left is to scale the process up, allowing us to track thousands of targets in real-time. The only real limit here is processing horse power and satellites.

Conclusion


In answer to our original question, it is technically possible for a satellite to detect your thoughts, your emotions and your perceptions and pass that information to a computer for interpretation. I bet that comes as quite a shock.

The only ever real restriction was the receiver sensitivity in the SLF/ELF band. The whole tinfoil hat brigade will be pleased, but will ultimately feel stupid as waves in the SLF/ELF band cannot be blocked by tinfoil hats. Even in the deepest tube stations, you would be heard perfectly from orbital distances.

Do you see the benefit to intelligence gathering?

So, given that it is technically possible, the questions now become which governments are using it and why was the public not informed?

There will be a lot of raised eyebrows in the world tonight.

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Deep Thought

Author  

Who would have thought?

#1 - Tue Jul 13, 2010 4:33 PM EDT

REPLY  8 votes

Deep Thought

Author 

Just a little update to the figures presented in this article. This is so people can play with the figures themselves. I'm applying no gain to the signal (TX/RX), although in the real world there would considerable gain on the RX side. Running it through a calculator at the follow location:

http://www.cdt21.com/resources/siryo3_01.asp

Input Values:

Freq (MHz): 0.000005

TX Power (Watts): 0.000087

Distance (Meters): 500000

Gain TX and RX (dBi): 0.0

Output Values:

Electric Field ($\mu\text{V}/\text{M}$) : 0.102176316

Received Power (mW): 7.933449

Effective Area (m): 2.86478882E14

Wavelength (m): 6.0E7

Decibel (dB $\mu\text{V}/\text{m}$): -19.812996

Decibel (dBmW): 8.99462

RX Area (m): 2.86478882E14

Power Density W_r (W/m): 2.769296E-17

So, the final figures are in agreement with my calculation.

#1.1 - Sat Jul 17, 2010 7:36 AM EDT

3 votes

Deep Thought

Author



I have removed comments that are off-topic as far as this article is concerned. Please add comments to the appropriate article.

#1.2 - Wed Jun 8, 2011 9:18 AM EDT

REPLY

KyleN

Wouldn't there be interference not only between people but even from inside the same brain?

The Voyager signal while weak was/is being broadcast at a constant frequency not often experiencing outside interference or periodic known interference that could be reversed algorithmically but brain matter changes constantly making new interference patterns second to second.

#2 - Tue Jul 13, 2010 5:41 PM EDT

REPLY

3 votes

Deep Thought

Author



The interference can be accounted for. Different clusters of neurons fire at different rates, given them a different phase and a shifting frequency. So, you simply take a broad range of frequencies 0-500Hz and analyze the timings against the frequencies. Every time that cluster fires, it could be uniquely identified by the pattern it makes across a narrow frequency spectrum.

There would be very little overlap between people, while the structure of the waves would be similar for given functions, both the frequency and phase would be unique.

Given the lack of alternative signal sources in these discreet ranges and the little interaction they have, the signals should be near their optimum at orbital distances.

Is there some form of natural process that amplifies these signals? I don't know, but the evidence suggests it is not required anyway.

#2.1 - Tue Jul 13, 2010 6:01 PM EDT

4 votes

The Incredulous One

"There would be very little overlap between people, while the structure of the waves would be similar for given functions, both the frequency and phase would be unique."

How do you know they would not be virtually identical? Ok let's say it's possible there was very little overlap. That suggests that there are many ways neurons can fire to produce say, a finger twitch; one pattern per person. But, if many possible neuron patterns can result in a finger twitch, those firings could also arise from the same person, especially given not only brain plasticity but alteration in excitatory or inhibitory neurotransmitters

which are all affected by brain and body chemistry which may be dissimilar from moment to moment. The point is you can't say much of anything about the similarity of firing patterns comparing one person against another.

#2.2 - Thu Oct 21, 2010 7:07 AM EDT

1 vote

Deep Thought

Author 

How do you know they would not be virtually identical? Ok let's say it's possible there was very little overlap. That suggests that there are many ways neurons can fire to produce say, a finger twitch; one pattern per person.

I think you need to read up on neural coding:

http://en.wikipedia.org/wiki/Neural_coding

But, if many possible neuron patterns can result in a finger twitch, those firings could also arise from the same person, especially given not only brain plasticity but alteration in excitatory or inhibitory neurotransmitters which are all affected by brain and body chemistry which may be dissimilar from moment to moment. The point is you can't say much of anything about the similarity of firing patterns comparing one person against another.

Do you have any information to support this assertion?

I'll think you will find, from the numerous links in this series of articles, that experimental data shows that we are generally wired the same for all our major functions and behavior. Thus, a generalizable pattern exists for almost every function.

#2.3 - Thu Oct 21, 2010 8:24 AM EDT

2 votes

The Incredulous One

Do you have any information to support this assertion?

I think you need to read up on brain plasticity. Generally, it's now known that the neurons are not a collection of hardwired connections. The infrastructure may be there but the synaptic junctions come and go. The neurochemicals (transmitters, inhibitors) come and go. So a neuron that fired yesterday may find itself looking at different possibilities for its output today, or an hour ago. As well, the input to the dendrites that was there yesterday may no longer exist.

I'll think you will find, from the numerous links in this series of articles, that experimental data shows that we are generally wired the same for all our major functions and behavior. Thus, a generalizable pattern exists for almost every function.

This is true and well known, but this is downstream of the firing of individual neurons. It is true in the aggregate or statistically. Even with the identical input, the output of a neuron is not always identical; there's a probability distribution of its output. This suggests that the "mapping" from output to input is not one-to-one. Even farther downstream are things like feelings and emotions, and opinions, so, imho, the program to control them by playing back a recording of neuron firings is doomed to fail. Sure, you can stick an electrode into the pleasure centers of the brain, but one person will experience sex with their spouse, another the fun on a merry-go-round when they were nine. ETC.

#2.4 - Thu Oct 21, 2010 9:49 PM EDT

1 vote

Deep Thought

Author 

I think you need to read up on brain plasticity. Generally, it's now known that the neurons are not a collection of hardwired connections. The infrastructure may be there but the synaptic junctions come and go. The neurochemicals (transmitters, inhibitors) come and go. So a neuron that fired yesterday may find itself looking at different possibilities for its output today, or an hour ago. As well, the input to the dendrites that was there yesterday may no longer exist.

The main functional circuits are largely fixed. That is, the same structures are identifiable in dissection and analysis under a microscope.

<http://en.wikipedia.org/wiki/Neuroplasticity>

We don't all develop independent solutions for the neural structures of our major senses, inner monologue, feelings and spacial skills. These are "fundamental algorithm", or neural networks, that we all share as a result of our DNA. Only certain subtle variations occur within these major groups.

Otherwise, we would all have different senses. Thus, the patterns produced by the neural encoding will be similar enough to be generalizable.

This is true and well known, but this is downstream of the firing of individual neurons. It is true in the aggregate or statistically. Even with the identical input, the output of a neuron is not always identical;

| *there's a probability distribution of it's output.*

Given that the brain is hardwired, the variation will be due to a finite range of factors from subtle changes in the input to the amount of potassium/sodium ions available, these variations may not translate to a noticeable difference in experience. Furthermore, it is arguable that these slight variations represent the subtleties of an input, whereas a generalizable pattern would provoke only the bulk of a sensation.

A good analogy may be that it is like the difference between aspartame and sugar on the taste bud.

| *This suggests that the "mapping" from output to input is not one-to-one. Even farther downstream are things like feelings and emotions, and opinions, so, imho, the program to control them by playing back a recording of neuron firings is doomed to fail.*

Actually, these are all separate systems. They are combined in real-time to produce qualia, its also referred to more technically as the binding problem. You need to think of your brain like the world wide web. Only rather than visiting each site individually, you experience the sum total of the activity on every server.

<http://en.wikipedia.org/wiki/Qualia>

http://en.wikipedia.org/wiki/Binding_problem

Keep in mind that no information is encoded onto the EM spectrum, so this really raises the question of what is experiencing the information. Is it the neuron? Given the structure and chemical composition, I can see no way for a neuron to have an experience.

Therefore, we're missing something and that something happens to be us. So, its a minor issue.

So, by stimulating individual neurons into firing, I stimulate this entire world wide web of neurons into introducing the experience interpreted by these networks into your qualia or experience.

| *Sure, you can stick an electrode into the pleasure centers of the brain, but one person will experience sex with their spouse, another the fun on a merry-go-round when they were nine. ETC.*

True. That said, if I could prevent the current activity in your brain, and introduce a direct duplicate of that childhood experience through electrical stimulation, the experience would just be the same and only your reasoning would be current.

As an electro-chemical device, you input information, process it and produce an output of some form when required. All I need to do is change the input. In practice, there is no difference in terms of experience between me burning you and electrically stimulating the neurons directly.

From a pure engineering perspective, it is the same thing, only at different stages of the input pipeline and there is no way for the brain to tell the difference. All sensory input ends up as electrical activity.

That said, at this stage it is unknown if a remote signal would be as powerful as a local signal. The main issue being transmitter complexity and neuron density for a given sensation.

#2.5 - Thu Oct 21, 2010 10:52 PM EDT

3 votes

Loozerio

Deep_Thought, would it be fair to say that you were simply presenting evidence toward the conclusion that it is *possible* that this capability already exists? Loozerio would say that you succeeded. It is indeed possible.

Has there been any research into field effects that are produced by A.I.? Since A.I. attempts to mimic the human brain by algorithm, wouldn't there be some kind of translatable e-m pattern given off by the processor? Just askin'. Anyway, this is cool stuff, D_T. ;^D>

#2.6 - Fri May 27, 2011 10:39 PM EDT

3 votes

Deep_Thought

Author 

| *Deep_Thought, would it be fair to say that you were simply presenting evidence toward the conclusion that it is possible that this capability already exists? Loozerio would say that you succeeded. It is indeed possible.*

I think its more accurate to say that I am reverse engineering a system known to exist.

| *Has there been any research into field effects that are produced by A.I.? Since A.I. attempts to mimic the human brain by algorithm, wouldn't there be some kind of translatable e-m pattern given off by the processor? Just askin'. Anyway, this is cool stuff, D_T. ;^D>*

As far as we're aware, the A.I. would be in a shielded room. Also, it would not use the same algorithms as the human brain, there are a lot of short-cuts.

It wouldn't be difficult to find, it needs to be close to the downlink.

#2.7 - Sat May 28, 2011 6:23 PM EDT

2 votes

LoveWestVirginia

Very interesting concept and I can think of a few instances where this technology could be used. But, taking a different route here, if satellites can detect such minute signals, why can't someone with the intelligence come up with a way for satellites to detect ANY form of explosive and stop terrorists before they detonate them (or themselves)? In my mind, this technology could detect, pinpoint location and even follow anyone or anything carrying explosives. Just a midnight musing I have had and still ponder upon occasionally.

#3 - Tue Jul 13, 2010 6:52 PM EDT

REPLY  2 votes**Deep Thought**Author 

why can't someone with the intelligence come up with a way for satellites to detect ANY form of explosive and stop terrorists before they detonate them (or themselves)?

In general, it would be because a current doesn't flow until detonation. As such, there would be no signal.

In more complex circuits, the emanated signals would be no different to any other timing circuit. I suppose comparison methods could reveal such a device in the context of a building, but the characteristics of the signal would need to be unique. As such, I would say there would be limited roles for this and given development and operation costs, would it be worth it?

#3.1 - Tue Jul 13, 2010 7:16 PM EDT

3 votes

Andy-2022388

This so called "science article" is crackpottery from end to end.

#3.2 - Sat Jul 17, 2010 10:57 AM EDT

3 votes

Deep ThoughtAuthor 

This so called "science article" is crackpottery from end to end.

Well maybe you would like to show us why?

I often find that those who post hit and run comments like this, cannot back up their claims. In the end, it is usually because they have a limited understanding of what they are reading. As such, they tend to go with their gut feeling.

#3.3 - Sun Jul 18, 2010 6:31 AM EDT

2 votes

robin-6 DeletedREPLY **hemphill**

Until the point where medical science can actually understand the brain, this seems rather like pie in the sky dreaming. We still have no idea why half the cases of epilepsy occur. If we can't understand the brain, up close and physically wired to it, doing it remotely would seem to be off the table.

#4 - Tue Jul 13, 2010 11:36 PM EDT

REPLY  3 votes**Deep Thought**Author 

Until the point where medical science can actually understand the brain, this seems rather like pie in the sky dreaming. We still have no idea why half the cases of epilepsy occur. If we can't understand the brain, up close and physically wired to it, doing it remotely would seem to be off the table.

Its not about "understanding the brain", but rather, associating radio emanations with particular actions, events, or sensations. For example, radio signature A represents a smile, radio signature B indicates stress and radio signature C is the word "Hello".

That level of interpretation is easy, its just a form of mapping.

#4.1 - Wed Jul 14, 2010 12:11 AM EDT

3 votes

hemphill

Until they can do more than say this frequency seems to come from the frontal lobe when john smith is about to kill someone, it's just not feasible or realistic to treat it as a mapping problem.

To treat this as a mapping issue, you'll have to observe each person while recording to get their overall output at a multitude of times/emotions/actions. Good luck with that.

#4.2 - Wed Jul 14, 2010 12:43 AM EDT

3 votes

Deep Thought

Author



OK, it seems that you do not understand the principle to well. I'll give you the benefit of the doubt on this one and explain.

Let's say I ask you to lift your arm. What I would track is the range of frequencies and patterns that were emanated during that period. Every time you lifted your arm, those same frequencies and patterns will appear. Thus, I can tell everytime you move your arm.

The problem you seem to have is, do we have to do this for everyone? The answer is no, we all come from similar genetics. The difference between you and someone else will be subtle, but the neural network that controls arm movement will be similar in enough respects to identify it as such.

In that respect, it is just a matter of creating a database from test subjects, defining a generalizable pattern and comparing the input signal against that.

This can be observed in fMRI attempts at classifying neural activity. There is no need to retrain the computer for each person.

It is just a mapping issue.

#4.3 - Wed Jul 14, 2010 1:12 AM EDT

2 votes

Deep Thought

Author



Until they can do more than say this frequency seems to come from the frontal lobe when john smith is about to kill someone, it's just not feasible or realistic to treat it as a mapping problem.

What do you mean by "do more"? What we are really talking about here, is surveillance of a target by listening to his mind. At a very basic level, just listening to the inner monologue should tell you everything you need to know. From a terrorism perspective, listening to someone mull over the location and plan of an attack is enough. That's not magic, its just a matter of listening to the right frequencies and patterns and comparing it.

#4.4 - Wed Jul 14, 2010 1:25 AM EDT

2 votes

hemphill

If all you have to do is map the output patterns once, that's a simple problem. Just get hold of a couple dead patients long term EEG's and you should have your map. It doesn't have to be satellite based, one that could pick up your thoughts in the house and act like a glorified clapper would make someone a billionaire. So, If it's that simple, build one.

Either way all it would take to defeat such a system is a wire mesh embedded hat with a one time pad encryption structure hooked up to a current. That's a pretty easy thing to build.

#4.5 - Wed Jul 14, 2010 2:02 AM EDT

1 vote

Deep Thought

Author



If all you have to do is map the output patterns once, that's a simple problem. Just get hold of a couple dead patients long term EEG's and you should have your map.

Dead people don't have electrical activity...you do know the medical definition of death is the lack of electrical activity?

To create a map, you use an SLF/ELF antenna and live human test subjects to perform various activities both physical and mental.

It doesn't have to be satellite based, one that could pick up your thoughts in the house and act like a

| glorified clapper would make someone a billionaire. So, If it's that simple, build one.

Do you know how weak and discreet these signals are? Do you understand the signal processing requirements?

Its a multi-million dollar project at least, easily billion dollar. This is not something you can do in your shed.

The satellite system is the finished product

| Either way all it would take to defeat such a system is a wire mesh embedded hat with a one time pad encryption structure hooked up to a current. That's a pretty easy thing to build.

Not likely. The frequency hopping and phase shifting would require a more complex setup. One estimate I made, was for a system with half a million transducers and about 26 years worth of construction work for one person.

That system will only give you millisecond resolution and may not be enough to saturate the signal.

Signal jamming is more complex than you think.

#4.6 - Wed Jul 14, 2010 2:28 AM EDT

2 votes

REPLY 

Matt Taylor

Does this have anything to do with tinfoil hats? :P

#5 - Wed Jul 14, 2010 11:36 PM EDT

REPLY 

1 vote

Deep Thought

Author 

In a way...it tells our tinfoil buddies to stop being stupid as they don't work. :)

#5.1 - Wed Jul 14, 2010 11:50 PM EDT

3 votes

Matt Taylor

Indeed, one would need a complete Faraday body suit ... a bit uncomfortable, but the only true protection against electromagnetic brain scans! :D

#5.2 - Thu Jul 15, 2010 12:26 AM EDT

2 votes

Deep Thought

Author 

Actually, I have been reading of tests done inside both a magnetically and electrically shielded room. Apparently weak ELF magnetic fields cannot be blocked effectively and can entrain the brain.

I don't know how true this claim is, because I am way of the source, but I have heard similar stories throughout the years.

Its going to open a new field in TEMPEST shielding though. If these wavelengths cannot be blocked, then anyone in a secure room could be leaking information.

#5.3 - Thu Jul 15, 2010 12:38 AM EDT

3 votes

hemphill

The type of secure room will just shift a bit. It'll be everything it is now and they'll wrap the room in superconductors.

#5.4 - Thu Jul 15, 2010 12:55 AM EDT

2 votes

Deep Thought

Author 

Perhaps, but what happens when they leave the room? Try training someone not to think about their work, or material they have seen.

Secure rooms are a security illusion.

#5.5 - Thu Jul 15, 2010 1:06 AM EDT

3 votes

reknight1

Your argument is logical and appears flawless, at least from a theoretical viewpoint. But ask your self a question Deep Thought: if this were being done, how do you explain the intelligence failures around the world? Using your own argument, that this has been going on for generations, we would know all the time what the enemy is thinking. But of course the human problem is that we simply don't know. Still the theory is interesting, doable but I don't think done yet.

#6 - Thu Jul 15, 2010 8:19 PM EDT

REPLY  2 votes**Deep Thought**Author 

Your argument is logical and appears flawless, at least from a theoretical viewpoint. But ask your self a question Deep Thought: if this were being done, how do you explain the intelligence failures around the world?

There are a number of explanations. Firstly, you need to know who to target and then its a waiting game until they think of something that proves valuable. Secondly, there is a limit on how many targets could be tracked at one time. In that respect, they may cycle through targets giving a week or two of dedicated time to each. It could be several months before they come back to that target. Finally, the process may have certain side effects if not completely passive, that may interfere with wider operations. As such, it may not be feasible to use the technology on certain high profile targets.

Using your own argument, that this has been going on for generations, we would know all the time what the enemy is thinking.

To a certain degree, for the reasons outlined above. You must also look at the other side of the coin. If you read the paper on ELF broadcasts from humans, you will notice it is Czech Defence Department. So, if they are at that stage of development, what stage is Russia or China at?

Still the theory is interesting, doable but I don't think done yet.

If the science is there and has been for at least 30 years, in a National Security context, would it have been irresponsible not to use it?

Think of the development of the Nuclear bomb, no one waited to develop the technology as soon as the physics became clear. Reading the enemy's mind is the Holy Grail of intelligence gathering. I don't see anyone passing up that opportunity.

So, not only is it possible, this technology is in full deployment.

#6.1 - Fri Jul 16, 2010 12:22 PM EDT

3 votes

REPLY **reknight1**

If I understand you correctly, you are saying two things; first, that it is being used because it is feasible and practical; second, that at least so far limitations of "side effects" and chance meetings of a mind have not produced much. Actually if this technology were extant, then it would certainly be abused to topple major and minor governments. Einstein and other scientists did not want to see the creation of the A-bomb. Would any responsible scientist want to be involved in such a project as reading peoples' minds, whether from a distance or even up close? I like to think that no responsible scientist would be involved in such a project.

#7 - Fri Jul 16, 2010 9:56 PM EDT

REPLY  1 vote**Deep Thought**Author 

If I understand you correctly, you are saying two things; first, that it is being used because it is feasible and practical; second, that at least so far limitations of "side effects" and chance meetings of a mind have not produced much.

The first part is accurate. We're talking about the military, if a technology has the capacity to expose terrorist cells or activities of governments worldwide, then they are going to pursue it. In terms of the productivity, that is a little more difficult to say. It all comes down to how much processing power is being the installation and the capabilities of the satellite array. Tracking targets simultaneously would be limited and that exact figure is unknown. It could be anywhere from a thousand targets, to tens of thousands.

Actually if this technology were extant, then it would certainly be abused to topple major and minor governments.

No doubt. I have wondered whether it was used to collapse the Soviet Union by targeting key protagonists and

introducing the concepts of perestroika and glasnost. In addition, I have wondered what role it played in the Iraq war. It would have been clear that no WMDs existed. If that is the case, then certain Western Intelligence agencies are rotten to the core.

Einstein and other scientists did not want to see the creation of the A-bomb. Would any responsible scientist want to be involved in such a project as reading peoples' minds, whether from a distance or even up close? I like to think that no responsible scientist would be involved in such a project.

Look at Oppenheimer, or any scientist who works on missile technology. Not to mention experiments on humans such as MKULTRA. Ethics is not a major concern for these type of people. I don't see this as an issue.

#7.1 - Sat Jul 17, 2010 6:38 AM EDT

3 votes

reknight1

I strongly disagree. MKULTRA was illegal and unethical. Experimentation on humans without their consent is and always will be illegal and unethical. That this horrendous action was done in the name of "national security" underscores the need for more control over government groups who feel that working for the military gives them power to do whatever they want. Reputable scientists will always be concerned with the ramifications of their creations. If for no other reason, these creators are human and have to live with themselves. It was Einstein who said: "I wish I had been a plumber." He knew what society would do with his theory.

#7.2 - Sat Jul 17, 2010 11:46 PM EDT

2 votes

Deep Thought

Author  

I strongly disagree. MKULTRA was illegal and unethical.

And yet it was done. That fact alone should tell you that there are scientists who have very little morals. Its a fact of life.

#7.3 - Sun Jul 18, 2010 6:18 AM EDT

6 votes

reknight1

True, which I why I voted for your comment. But I do not think a reputable scientist would, unless he were persuaded.

#7.4 - Fri Jul 23, 2010 8:34 PM EDT

1 vote

anonymous-1077600

Your article has possibilities, if you also consider the work with EEG, functional MRI and other research into robotics and the human reactions that were changed into electrical impulses to make a computer raise it's arm or speak, etc... They would also have to get readings of a certain amount of individuals so that they could utilize this information to get a sample of the fluctuations in different individuals. It is funny that within a certain time period(I am thinking 2011 or 2012) all hospitals will have electronic medical records, could some of this information be used? This is just a question, but I am curious if it is plausible to utilize these as well as combining it with any other research?

#7.5 - Sun Jul 25, 2010 2:34 PM EDT

1 vote

Deep Thought

Author 

True, which I why I voted for your comment. But I do not think a reputable scientist would, unless he were persuaded.

I'm sure a million and one emotive arguments exist. Given the design of the system, it also takes very little to adapt existing technology to perform this function. Thus, many people involved in the development of the core systems, could be oblivious to the full scope of the project. That is, I don't need to know a system can read thoughts, just to program an A.I, or make an ELF antenna.

Thus, there could be only a few hundred with full knowledge of the technology. It remains to be seen what level of involvement politicians or legal experts had, given the dubious legal standing such a system has. Who has been signing the cheques?

#7.6 - Sun Jul 25, 2010 3:33 PM EDT

2 votes

REPLY 

Deep Thought

Author 

It is funny that within a certain time period(I am thinking 2011 or 2012) all hospitals will have electronic medical records, could some of this information be used? This is just a question, but I am curious if it is plausible to utilize these as well as combining it with any other research?

Only as part of degradation, lie detection and general health assessment. That is, there would be nothing that could be employed that could assist with an interface.

#8 - Sun Jul 25, 2010 3:22 PM EDT

REPLY 

2 votes

anonymous-1077600

Thanks for the answer, I found your article very interesting, something like this makes one wonder about the science that is being used by our government and that of others and how far they have taken it without us knowing about their experiments and advancements!

#8.1 - Tue Jul 27, 2010 1:10 AM EDT

REPLY 

CL1

Hello again, this was interesting to learn our brains transmit like a radio, and our thoughts, emotions could be picked up by satellite. ...not surprising. :)

I don't know what questions to ask that you haven't already addressed above about this technology. I wonder about the limited capability; it seems like there would be a variety of reasons for interference with different human interactions, locale, i.e.crowded mass transit, mall, group function with multiple conversations and signals being passed... the thoughts and emotions could be transmitted from person to person, such that the satellite could be getting someone else's thoughts second-hand through the target, no? (I hope that made sense to you.)

#9 - Mon Aug 9, 2010 5:14 AM EDT

REPLY 

1 vote

Deep Thought

Author 

I wonder about the limited capability; it seems like there would be a variety of reasons for interference with different human interactions, locale, i.e.crowded mass transit, mall, group function with multiple conversations and signals being passed

I think you have answered your own question. If we were all broadcasting on the same frequencies the neuron, as a transducer, would convert that energy into an action potential. In other words, the fact that close proximity does not result in us hearing each others thoughts, or scrambling your own thoughts, indicates that similar neural networks, broadcast on a unique band of frequencies. Its a form of **cross talk** prevention.

As such, the answer is merely sensitivity of the receiver. Using a form of **multilateration**, across a satellite array, identifying and tracking a target would be pretty straightforward. Given atomic timing and the little interaction of SLF/ELF waves, you should be able to pinpoint the source of a wave down to millimeter accuracy. Once done, you take the signals that arrive in a given time frame and they will be associated with the target. Then it is a matter of pattern matching to make sense of those signals.

...and yes, this does imply that it is possible to talk back, send images, send feelings, interrupt brain signals and processing, effect muscles and motor system, etc.

Its all a matter of sensitivity and this level was obtained back in the 70's.

#9.1 - Mon Aug 9, 2010 7:49 AM EDT

1 vote

CL1

Thanks for a reply. I didn't get a tracking.

Yes, I was thinking that we would all broadcast on a different frequency or signal to enable locating the origin. I was referring to the accuracy of the individual's thoughts as being their 'own,' considering that when communicating with others, we are processing the other's input.

Maybe the issue I'm attempting to point out isn't that relevant overall - but in a critical event of needing individual thought, it could make a difference, possibly? ...

Wow, pretty incredible that this was so advanced in the 70's!!

#9.2 - Tue Aug 10, 2010 6:54 PM EDT

1 vote

Deep Thought

Author



I was referring to the accuracy of the individual's thoughts as being their 'own,' considering that when communicating with others, we are processing the other's input.

That's just a matter of identifying activity in the auditory processing sections. You can isolate what is being heard that way. There would be different frequencies and patterns for such activity.

Wow, pretty incredible that this was so advanced in the 70's!!

I think all that has really changed is the number of simultaneous targets, the introduction of an A.I. interface/interrogator and higher resolution in terms of what forms of activity are monitored.

#9.3 - Wed Aug 11, 2010 7:06 AM EDT

CL1

It's interesting, imo.

As a side note, I came across an article, but unfortunately didn't save it, regarding some controversial military satellite activity and monitoring issues in the Bush era between 2001 and 2006, and using the government computers for pornography, drugs, etc.; it certainly is concerning in just how much the technology is being used for what it was not designed for.

Thanks for the discussion.

#9.4 - Wed Aug 11, 2010 6:15 PM EDT

1 vote

REPLY

Derrick-2281637

Thanks so much, Deep Thought. And congratulations, that you've brilliantly answered all of your skeptics. Being on the receiving end of this technology, we already know that it not only exists, but is in full operation, and has been for quite some time, although until now we've not been able to find anyone to explain how it would work. If allowed, I would like to save and post this most valuable information for our group. btw, may I ask of your background? Do you have a degree in physics or something related?

Derrick Robinson, President
Freedom From Covert Harassment and Surveillance
www.freedomfchs.com

#10 - Tue Aug 31, 2010 1:34 AM EDT

REPLY

1 vote

Deep Thought

Author



Thanks so much, Deep Thought. And congratulations, that you've brilliantly answered all of your skeptics. Being on the receiving end of this technology, we already know that it not only exists, but is in full operation, and has been for quite some time, although until now we've not been able to find anyone to explain how it would work.

No problem. The technology operates something like a traditional music box. Every neuron has a range of unique frequencies and that frequency passes down a chain of neurons, slightly out of phase. Each chain has a structure that defines what it does and this can be determined by the phase differences.

For example, when you touch something, several things happen. First the area that is being touched sends a signal which is passed to the brain. Secondly, the intensity is represented by the firing rate of the neuron. So, by listening on this frequency and how often this frequency appears in a given time frame, I can determine where and how hard you were touched.

So, it is merely a matter of cross-referencing these signals (or tones) with an action or event. In principle, it is pretty straight forward.

Signal processing is performed by FFT analysis, similar to this:

<http://www.supershareware.com/images/screenshot/FFTP5ScreenShot2.png>

Picking someone out of a crowd is relatively easy given timing differences in received signals.

Also, if you find some of the victims a little delusional, it is to be expected. It is how the A.I. hides itself. By lowering the credibility of the victim, it creates what should be the perfect cover. Having read numerous reports by victims, I have found some clear markers that indicate technology as opposed to natural circumstances.

Also, it would appear that there has been an attempt to add this attack to classical literature of psychological illness. Again, another cover story and probably the source of the majority of domestic attacks.

If you are looking to prove it, just start recording signals in the 0-1000Hz range. You should see signals originating in orbit, that match signals from the human brain.

If allowed, I would like to save and post this most valuable information for our group. btw, may I ask of your background? Do you have a degree in physics or something related?

I would rather that you linked to here. The reason being that I may update these articles as new information comes to light. This way, there will not be lots of conflicting information floating around the web.

I'm an IT specialist by trade, so the A.I. behind this falls into my area. But I also have a solid background in physics and electronics, having switched to IT from this field.

#10.1 - Tue Aug 31, 2010 9:14 AM EDT

1 vote

CL1 Deleted

John Allman Deleted

REPLY

emtechvctm20plusyrs

You write: [since the 1970s] "I think all that has really changed is the number of simultaneous targets, the introduction of an A.I. interface/interrogator and higher resolution in terms of what forms of activity are monitored." What could change? Through-put [how much data is acquired, and then processed, at any one time]; and, signals-relay speed and signals processing speed.

Assuming that 'they' learned all about the human body in the 1970 [neural decoding, radio x neurological activity mapping of the human body [such as along the lines of your proposed science description]; thought monitoring (verbal thought, visual thought, auditory experience, etc.); body monitoring.

Their 'Interpreter' and Interaction capacity could, over these 30, 40 years, become quite advanced (another 'holy' grail in AI - to understand the real world better and better as it is - with many, or 'all' its potential interrelationships, connections - let's say the 'holy' grail is a 'bubble up' neural network of interrelationships, with variable thresholding, so that 'real world' significant to humans interrelationships are recognized, but non-interesting interrelationships are usually ignored). I believe (including based upon my personal experience) that it's pretty advanced by now.

Real time signals relaying and processing? Its probably gotten faster (aren't there advances in 'optical', analog signals relaying and signals processing?); there are obvious modern-computer-age speedups in computer processing. And, even the fastest 'table based' lookups [to speed up computer human interaction by 'table based' quick-lookups] are significantly faster, due to significantly faster computer memory, and much faster computer 'processors'.

Throughput?

Despite my personal experience that maybe there is some (relatively minor) increase (in throughput) here, I'm not sure that there has been such great progress - to convey multiple, multiple channels of real-time ('neural' based) information might just be limited.

And, if a person's doing a very dynamic realtime sports activity - maybe the (signals-and-data) processing needed is just too fast to 'be right on top of'? This is Another 'holy' grail [i.e., to be totally, computationally, 'ultra-fast real time on top of' a human activity; e.g., to prevent a world class figure [ice] skater from falling, after he/she does an erroneous take off [wrong force, wrong everything] - can a computer detect it, and navigate, and successfully mediate?, a 'compromise' performance part, not to mention to 'coverup'/make-up the error - that is, to help navigate, and to mediate, and (help to) satisfactorily make up the missed performance element(s) [not to mention with reasonable musical gracefulness - for that skater's music for that performance]].

#11 - Tue Aug 31, 2010 5:45 PM EDT

REPLY

1 vote

Deep Thought

Author



And, if a person's doing a very dynamic realtime sports activity - maybe the (signals-and-data) processing needed is just too fast to 'be right on top of'?

Most of your conclusions are fine. I think this may be of interest to you:

<http://www.amazon.co.uk/User-Illusion-Cutting-Consciousness-Penguin/dp/0140230122>

This book has a section on the bandwidth of brain interactions. You can see some of it here:

http://fm.schmoller.net/2007/03/16_bits_per_sec.html

Anyway, the point is that given all our functions, there is not a lot of data. Even when interpreted by ELF, which uses a different mechanism, there is still not a lot of data.

When interpreted by ELF, it is not data that is being captured, merely the presence of a signal on particular frequencies. So, we can skip any processing further up the stack.

Let say we wanted to monitor touch, to the first finger of the right hand. We could use a range of test subjects and record the ELF patterns. A better approach, is to record a range of subjects doing set tasks and let a pattern matching algorithm fill in the blanks.

Once we have located the pattern for a touch to the first finger of the right hand, we would observe that we only need to monitor two areas. The first being the pattern that represents the finger and second the intensity. To locate the pattern that identifies the finger we look for a unique frequency that is in a specific phase pattern. Movement across the frequencies would indicate the intensity.

Keep in mind that the touch receptor map is preserved to the level of the brain:

<http://faculty.washington.edu/chudler/flash/hom.html>

So, in terms of "data" or information, how much does that represent?

Not a lot. In fact a full body map of touch receptors expressed as boolean values would be well under a Megabyte. So, it wouldn't take much more to map the rest:

<http://www.starsandseas.com/SAS%20Physiology/Neurology/Touch.htm>

Does such a system need to project what will happen based on these inputs? Do we need to computationally project the fall of the dancer?

No, update or delta information is constantly being supplied.

As long as the processing of input is faster than can be relayed back to the target, it will suffice. In that respect, if bandwidth or processing power becomes an issue, sensory perceptions could be processed at a slower pace compared to speech. At times of peak availability, in terms of the hardware, both may be processed in real-time.

The bottom line is, given modern hardware or even hardware from the mid-80's, the amount of data would not stress any super-computer. Thus, all that would change would be the number of targets, both passive and interactive.

#11.1 - Tue Aug 31, 2010 7:15 PM EDT

1 vote

emtechvctm20plusyrs

A webpage which you linked to above, http://fm.schmoller.net/2007/03/16_bits_per_sec.html, includes the following quoted-from statement:

"There is an increasing body of evidence that only a minuscule proportion of the sensory data processed by the unconscious mind (capable of processing approximately 11 million bits per second) is referred to the conscious mind (capable of processing approximately 50 bits per second). It is also clear that conscious awareness of stimuli from the environment lags actual perception by approximately half a second, but that a backward referral of subjective experience results in a individual's perception of the stimulus and its conscious awareness as simultaneous. These findings challenge the primacy and supremacy of conscious processing of information on which a substantial proportion of educational practice and policy is based, and suggest a re-evaluation of the the nature of teacher competence and expertise."

That's a lot of information, 11 million bits a second. I am not referring to (or claiming that), or implying that, the CONSCIOUS mind handles anywhere near that.

However, a skilled person trains his mind, trains his body, for performance. A chess master's thoughts sit atop of many things he will never be CONSCIOUS of during a competitive-game, but his/her thoughts do sit atop of the ability to command his/her mental resources, mainly his/her in-depth memory and knowledge of chess playing, TO BE ABLE TO BRING TO CONSCIOUSNESS things as need be.

Similarly, a high performance athlete (and in many real life situations, an ordinary person, but with less training, and 'skill intensity', involved) trains his/her body, trains his/her experience, so as to be READY TO BE ABLE TO BRING TO CONSCIOUSNESS elements of his/her athletic skill, and knowledge, AS NEED BE.

Its this 'skilled director' capacity, the ability [or if not yet scientifically proven, then at least considering the possibility that it may be true] for a person's '50 bits a second' of 'conscious awareness' to SKIM ON THE expanse of that '11 millions bits a second' of 'unconsciously obtained' information.

Don't you think there is value to be able to do that?

Or is that so obscure - only applicable, only needed, only helpful maybe to 'fighter pilots'?

No, it's not obscure. It's a meaningful capacity. I believe that: it IS a desirable 'holy' grail to be able to help a person consciously to achieve (or at least to 'back out' of some error situation, like my example suggested): TO BE ABLE TO MONITOR, TO BE ABLE TO MAYBE POTENTIALLY ASSIST, someone, as his/her conscious mind 'skins' upon the expanse of the larger 'in total, unconscious, perceptual experience' of a human being.

Thank you for your reply.

#11.2 - Tue Aug 31, 2010 9:01 PM EDT

Deep Thought

Author



| That's a lot of information, 11 million bits a second.

11,000,000 bits = 1375000 bytes = 1342.77 KB = 1.31 MB

Its nothing. That's not even a floppy disk's worth, broadband internet has more bandwidth.

However, a skilled person trains his mind, trains his body, for performance. A chess master's thoughts sit atop of many things he will never be CONSCIOUS of during a competitive-game, but his/her thoughts do sit atop of the ability to command his/her mental resources, mainly his/her in-depth memory and knowledge of chess playing, TO BE ABLE TO BRING TO CONSCIOUSNESS things as need be.

Try this, just watch the video and do not read anything else until you have finished:

<http://www.youtube.com/watch?v=vJG698U2Mvo>

You are describing what we call a fulcrum. A fulcrum is used in graphics programming to restrict the amount of information being sent to the screen. Anything outside the fulcrum should not be processed. A fulcrum in terms of the brain is related to attention. If you focus on playing music, your brain will select memories related to this topic. If you are counting certain things in an image, you will not really notice anything in the scene.

As you have seen in the video, it is a fact, our brains only pass a certain amount of information to our consciousness and that is related to the task at hand. That's why distraction leads to problems with concentration, selecting the right information, fully recognizing what we are doing or understanding provided information.

The real puzzle lies in the amount of data transferred across such narrow bandwidth. Obviously, some other mechanism is at play.

TO BE ABLE TO MONITOR, TO BE ABLE TO MAYBE POTENTIALLY ASSIST, someone, as his/her conscious mind 'skims' upon the expanse of the larger 'in total, unconscious, perceptual experience' of a human being.

Ultimately, due to how the mind works, you are suggesting that some government approved way of thinking is beneficial?

I think you'll find that was an underlying factor in most wars of modern history. The freedom of thought is paramount. As a result, I think it is unrealistic, no matter how beneficial, that deployment could occur.

Certainly, it is arguable that certain experiments are being conducted and that this is something that would be tested. The real problem here, of course, will be public reaction to such activity as it is their horror story come true. That would be the end of the technology and it is only a matter of time before that happens.

#11.3 - Tue Aug 31, 2010 10:04 PM EDT

emtechvctm20plusyrs

Thank you for your reply.

Reply1: Ref: 'Throughput'

My question of 'throughput' is a result of my personal experience of my body and brain being monitored, real time, day and night, for years and years.

Your technology proposal does not involve the type of technology set-up which I have been a victim of: '1 or more satellites transmitting electromagnetic signals at a human; the signals pass through the human body and brain; picking up 'interference patterns' [perhaps based upon neural activities as you have described/proposed them]; then, the signals bounce [off of the ground, etc. and] back to the sky where receiving satellites are sufficiently positioned to receive the signals [maybe sensitive receivers just sit there, not so finely positioned as they are ultra-sensitive to pick up 'anything' - such as you have described[proposed]]; from there, the [receiving] satellite(s) relay the signal(s) to a research center; the research center's computers quickly process and modulate the signals appropriately; the adjusted signal is immediately relayed to 1 or more transmitting satellites; and then, the next microsecond of real-time body and brain monitoring and assault goes forward.'

It was my personal experience that for some reason, or at least years ago, they couldn't process 'fast transitioning (and thinking), human body-and-brain' (such as that 'competitive ice skater' example I gave above). Maybe there are delays that occur, or accumulate, as the signals pass through the human body, or maybe there are delays in 're-synchronizing' the received signals [multiple signals from time X taking different pathways, and slightly different amounts of time, to return back to the sky].

Also, my personal experience is that [U.S. Gov.] researchers sometimes or often? intentionally 'slow down', clamp down, upon the body and brain, so as to limit or narrow a victim's wider attention span. (And, I have heard many victims complain that their attention, their total overall awareness, is being 'narrowed' by the monitoring and assault which is targeting them.)

So I am not arguing with you. Your proposed technology set up has different real-time processing considerations than the set-up which I have (just) stated above.

Reply2: ref: that video about 'selective attention'; possible 'experimental 'flaw'' to that; and, my suggestion of Conscious mind 'skimming atop of' the larger 'unconscious' mind;

Nice video. But try it 100 times. A possible flaw in that experiment is: that an unfamiliar skill is being requested. Try it 100 or 1000 times. Maybe you could correctly count with no effort after the 200th try, and maybe you could spot just about any Gorilla, or butterfly, or fly, in the 300th try, and notice all types of thrown-in oddities. If someone has a good night sleep, and walks outside, on a suburban or city street, or to a forest or field, his/her attention may naturally notice all types of things, and he/she is most likely to notice something unusual. This level

of brain processing (to be able to see, or perceive a complex environment, and to pick out 'what's unusual') is well within human capacity. But a good night's sleep is required for it. I believe that that 'Conscious mind skimming atop the larger, gigantic, perceived world of the 'unconscious mind' ' does exist, does occur.

Reply3: Ref: clarification (about the source of my suggestion about the 'conscious mind' skimming atop the larger 'unconscious mind')

[[You wrote: "Ultimately, due to how the mind works, you are suggesting that some government approved way of thinking is beneficial?"

No. To my knowledge, I was not referring to any Government proposed ways of thinking. Not that I know of. I thought that the "Conscious mind" skimming atop the larger "unconscious mind", was just an ordinary type of suggestion. [[Yes, I am a college graduate. and yes, I have studied computer science and (a relatively small amount of) A.I..]]

]]

#11.4 - Wed Sep 1, 2010 7:12 PM EDT

Deep Thought

Author



Your technology proposal does not involve the type of technology set-up which I have been a victim of: '1 or more satellites transmitting electromagnetic signals at a human; the signals pass through the human body and brain; picking up 'interference patterns' [perhaps based upon neural activities as you have described/proposed them]; then, the signals bounce [off of the ground, etc.

The laws of physics would not permit this. The power density needed to pass through buildings and remain at a level not dangerous to human health cannot be achieved at small wavelengths. You have only two choices of EM radiation from the brain and that is infra-red or ELF. Given that infra-red would be blocked by buildings also, the only option is SLF/ELF.

It was my personal experience that for some reason, or at least years ago, they couldn't process 'fast transitioning (and thinking), human body-and-brain' (such as that 'competitive ice skater' example I gave above).

That's a long time ago. The amount of data we are describing could be pushed by a satellite from the 80's. Tens of thousands could be covered with the bandwidth of a modern satellite. A few megs per person is nothing, especially if you are pushing it to a supercomputer for analysis. See here:

<http://www.globalsecurity.org/space/systems/bandwidth.htm>

Nice video. But try it 100 times.

That's not the point. The point is that only selected aspects of a scene are sent to the conscious mind. Repeating the experiment only shows that you have not removed that gorilla from your mind.

No. To my knowledge, I was not referring to any Government proposed ways of thinking.

It seemed as though you were advocated some form of automated assistance with filtering information. A form of transhumanism.

#11.5 - Wed Sep 1, 2010 8:30 PM EDT

The Incredulous One

"Tens of thousands could be covered with the bandwidth of a modern satellite."

It's not the bandwidth of the satellite that's the problem. It's the capacity of the channel, and as Shannon knew, it's limited by the bandwidth and the signal to noise power. The channel is the earth's atmosphere, and the ELF bandwidth is very narrow. I'd be surprised if you could push through at **one tenth of a bit per second**. By the time your multichannel analyzer/processor figured out I was about to hit middle C on the piano, the entire concert would be over, and the parking lot empty.

#11.6 - Sun Oct 17, 2010 11:34 PM EDT

1 vote

Deep Thought

Author



*It's not the bandwidth of the satellite that's the problem. It's the capacity of the channel, and as Shannon knew, it's limited by the bandwidth and the signal to noise power. The channel is the earth's atmosphere, and the ELF bandwidth is very narrow. I'd be surprised if you could push through at **one tenth of a bit per second**. By the time your multichannel analyzer/processor figured out I was about to hit middle C on the piano, the entire concert would be over, and the parking lot empty.*

Again, your science is completely off, your description relates to data capacity over a serial link. There is no information modulated onto these frequencies. If you were about to press middle C on a keyboard, a wide range of neurons would be firing, emitting a pattern across a spread spectrum of low frequencies.

Just by examining the pattern, activity can be derived.

It does not function like a data channel and Shannon's law is not applicable.

#11.7 - Mon Oct 18, 2010 4:33 AM EDT

1 vote

The Incredulous One

No one's modulating anything onto the firing. If we followed your reasoning, there would be no point trying to calculate the information capacity of a neuron itself. The type of coding to use is an argument to make, not a reason to say that ordinary concepts of bandwidth don't work so you can't calculate the capacity. The capacity is a function of the coding, so what you do is make assumptions about the firing, e.g. you can code using the firing rate itself. In any case, the capacity of the atmosphere channel is of interest, and yes, there is a bandwidth and S/N that one can estimate. The requirements of Shannon's formula are simple, and I don't expect them to apply strictly, but the capacity is relatively low. And what if your "pattern" contains lots of the low frequency ELF? The bottleneck is right there. What's the least you have to wait to know if a wave is at 2Hz? That's right, at least, 500msec. The "pattern" will build up very slowly. The high frequency bits will wind up in the high frequency bins more rapidly, but you will have to wait for the slowest before you can see the "pattern" emerge. There's no hope in doing anything you're talking about in real time.

#11.8 - Thu Oct 21, 2010 6:33 AM EDT

1 vote

Deep Thought

Author



No one's modulating anything onto the firing. If we followed your reasoning, there would be no point trying to calculate the information capacity of a neuron itself. The type of coding to use is an argument to make, not a reason to say that ordinary concepts of bandwidth don't work so you can't calculate the capacity. The capacity is a function of the coding, so what you do is make assumptions about the firing, e.g. you can code using the firing rate itself.

The capacity of the neuron itself??? How is this relevant? We are simply talking about broadcasting a radio signal to make a neuron fire. What the neuron does, or how it responds to the rate at which I am broadcasting is a secondary consideration.

In any case, the capacity of the atmosphere channel is of interest, and yes, there is a bandwidth and S/N that one can estimate. The requirements of Shannon's formula are simple, and I don't expect them to apply strictly, but the capacity is relatively low. And what if your "pattern" contains lots of the low frequency ELF? The bottleneck is right there. What's the least you have to wait to know if a wave is at 2Hz? That's right, at least, 500msec. The "pattern" will build up very slowly. The high frequency bits will wind up in the high frequency bins more rapidly, but you will have to wait for the slowest before you can see the "pattern" emerge. There's no hope in doing anything you're talking about in real time.

But our frequency range is in the 300-1000Hz range, that's 0.001-0.003 secs, with a real-time windows of about 200ms and an undefined window for non-real-time. The bottleneck that you describe can be accounted for at the analysis stage and does not present a true bottleneck in terms of processing. In practice, it would just mean a bias in the amount of circuitry of the signal processing equipment dedicated to lower frequency detection.

Whilst a problem, it does have a definitive solution.

#11.9 - Thu Oct 21, 2010 8:41 AM EDT

2 votes

REPLY

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

Jeff-2274743 Deleted

tatamimi Deleted

Derrick-2281637

This is interesting, Deep Thought. You are saying that the Frey effect and Synthetic Telepathy are two different mechanisms? Are you familiar with the Joseph Sharp-Mark Grove experiments at Walter Reed back in the 70's? I had the impression that they were transmitting the human voice to Joseph Sharp based on principles from the Frey effect. If so, was this synthetic telepathy or the microwave hearing effect?

#23 - Thu Sep 2, 2010 11:57 AM EDT

REPLY 

Deep Thought

Author 

This is interesting, Deep Thought. You are saying that the Frey effect and Synthetic Telepathy are two different mechanisms?

The Frey effect is the result of heating. Its a toy and cannot be used in a practical scenario. Synthetic Telepathy relies on the principle of radio. A neuron is a transducer and can be remotely fired by SLF/ELF radio signal.

So, if I think of the word "book", certain neurons fire and certain frequencies are emitted. If I now use a "replay attack" and return those signals exactly, with a little more amplitude, I can cause the same neurons to fire and the word "book" will be heard in your mind.

If we now hook that radio to a supercomputer, with a fully conversant A.I., we have a chat bot that can only be heard by the targeted individual. We are also not limited to voice, we can send images, feelings, music and sensory control (such as tighten muscles).

Are you familiar with the Joseph Sharp-Mark Grove experiments at Walter Reed back in the 70's? I had the impression that they were transmitting the human voice to Joseph Sharp based on principles from the Frey effect. If so, was this synthetic telepathy or the microwave hearing effect?

Just done a quick search on this. It appears to be just microwaves. The practical applications are limited outside of a lab scenario.

#23.1 - Thu Sep 2, 2010 12:49 PM EDT

REPLY 

John-2292919 Deleted

John-2292919 Deleted

Roger-2300270

Deep_thought,

is it possible to block this type of directed energy that this story speaks about??

<http://gizmodo.com/5022355/crowd+controlling-medusa-ray-gun-puts-voices-inside-your-head>

#26 - Sat Sep 4, 2010 5:56 PM EDT

REPLY 

Deep Thought

Author 

MEDUSA is similar to active denial, it creates a high pitched noise in your head that is uncomfortable. It can be reflected with a thin sheet of metal.

one more question.... is it possible to put voices inside your head using the technology the above story speaks about from a satellite or jet cruising at 40,000 ft?

Its impractical. The energy density must be maintained at the skull to induce the effect. Go inside a building and the energy density would be nearly fatal for those several floors above.

ELF does not have this issue.

#26.1 - Sun Sep 5, 2010 11:41 AM EDT

REPLY 

Roger-2300270 Deleted

guy potter Deleted

Don Brown-2301722 Deleted

cyrus redbluff Deleted

John Allman Deleted

John-2303484 Deleted

cyrus redbluff Deleted

A Brenner

Deep Thought,

Have you checked out the time reversal wave or TR wave made with a (TRM), time reversal mirror. (Doesn't reverse time.) What it does is read an emitted signal from a target and then copy it and send it back to the target reversed to create a sort of biological standing wave depending on the intensity of it and the type of target. The cool thing about it is that the TR wave automatically travels back toward the target along the original wave that the target is emitting with NO loss of attenuation and it follows a moving target. Also secondary information can be modulated and sent in on the TR wave.

Mathias Fink of the Waves and Acoustics Laboratory in France invented this and encourages its use in medicine to burst things like kidney stones and rid the body of inflammation and tumors and such. But his article's last paragraph hints that the TR wave can be used to much much more:

"Time-reversal techniques may also be extended to types of waves other than sound waves. Some researchers in the radar community are exploring their possible application to pulsed radar, using electromagnetic waves in the microwave range. Another type of wave occurs in quantum mechanics: the quantum wavefunctions that describe all matter. Indeed, a type of retroreflection can occur when an electron wavefunction hits the boundary between a normal conductor and a superconductor. One can only speculate on what kinds of tricks would be possible if time reversal were applied to the waves of quantum mechanics."

Time-Reversed Acoustics,

Scientific American, November 1999 97

#34 - Sun Sep 5, 2010 9:56 PM EDT

REPLY 

Deep Thought

Author 

A TR wave converges on the original location by following a reversed route of transmission. There is attenuation loss but at ELF frequencies it around 1-5dB per 1000Km. That is, the focal point of a TR wave will converge on the point in space it was originally transmitted from. If you are broadcasting partial signals across an array, using a TR calculation to project location, you could create a focal point at the position.

The question is, do you need it?

I suppose from a power conservation perspective, it could even out the power loss on each satellite. It could also even lower the amount of radiation in the path of each transmission. Of course, all depending on where your targets were located.

The problem is that you have effectively lost a number of simultaneous broadcasts by tying up satellite transmitters. It also adds an overhead in terms of the calculation and transmitting that to satellite. Finally, there is the issue of synchronization, which brings up problems such as real-time and partial delay.

Its complicated, it has it benefits and drawbacks.

Ultimately, it is a design choice and the system may function without it.

#34.1 - Sun Sep 5, 2010 10:54 PM EDT

1 vote

A Brenner

Deep Thought,

Thank you for the above article and your interesting response to my query.

I wonder if you realize that one of the concerns of targets is not only how their minds might be accessed; but also, how could antagonistic biological information and other communication be sent to them from great distances such as satellite. I'm not suggesting that the TRM or time reversal mirror would be needed for "reading the mind." My thought is that the TR Mirror, uniquely designed to disrupt the integrity of an object by bombarding it with its own signature frequency would be an efficient tool for creating the uncomfortable sensations and isolated areas of damage that targets experience. It could also communicate biological information for either a positive or a negative effect on the target. Apparently the actual destruction of the target when bombarded with its own signature is dependent upon amplitude, with weak mirrored signals simply entering the subject.

I recall reading once that satellite based remote sensing used for the study of all sorts of biological events on the surface of the earth, even photosynthesis rates, can also be used to manipulate that remotely sensed data. Isn't all of this related to the science of remote sensing?

AB

#34.2 - Mon Sep 6, 2010 4:55 AM EDT

Deep Thought

Author



I wonder if you realize that one of the concerns of targets is not only how their minds might be accessed; but also, how could antagonistic biological information and other communication be sent to them from great distances such as satellite. I'm not suggesting that the TRM or time reversal mirror would be needed for "reading the mind." My thought is that the TR Mirror, uniquely designed to disrupt the integrity of an object by bombarding it with its own signature frequency would be an efficient tool for creating the uncomfortable sensations and isolated areas of damage that targets experience.

You do not need a time reversed signal to achieve it, but it can be employed.

It could also communicate biological information for either a positive or a negative effect on the target. Apparently the actual destruction of the target when bombarded with its own signature is dependent upon amplitude, with weak mirrored signals simply entering the subject.

It would be easier to interrupt the signals to the heart muscle, or make it beat too fast. I suppose you could converge beams, but it would show up as a clear burn in an autopsy.

I recall reading once that satellite based remote sensing used for the study of all sorts of biological events on the surface of the earth, even photosynthesis rates, can also be used to manipulate that remotely sensed data. Isn't all of this related to the science of remote sensing?

In a way and it could even be classed that way. In practice though, its just radio.

#34.3 - Mon Sep 6, 2010 6:17 AM EDT

2 votes

A Brenner Deleted

REPLY

cyrus redbluff Deleted

A Brenner Deleted

cyrus redbluff Deleted

informerr Deleted

cyrus redbluff Deleted

Don Bailey-2307952 Deleted

Derrick-2281637 Restored

Hi Deep Thought. I've received the following comments regarding your information here from someone on our forum. Can you answer these concerns? radio astronomy antennas do not operate anywhere near the ~0 to ~100 Hz band, which is the "party line" on which all living things transmit. Even if a radio astronomy telescope could operate in that band, it would have to sort out signals emitted by your brain from every other living thing in your vicinity, plants included.

The need for a demonstration as to how a radio antenna/receiver can pick up a signal from YOUR brain alone, is obvious or should be. We're talking hundreds of miles away, not in some shielded lab.

Thirdly, brains are NOT - repeat NOT - at all like stations on a radio dial. Inside the brain, each nerve fires bursts of pulses. The pulsing CONSTANTLY CHANGES. So all living things' emissions are changing all the time. There is no "single frequency" your brain signals can be identified by.

The total of nerve activity reaches the surface of the skull as ELF varying voltages in the ~0 to ~100 Hz range. For even a huge phased array antenna to access different nerves *IN 3D* from hundreds of miles away is such a phenomenal feat that it must be DEMONSTRATED and the demo published by a mainstream ORGANIZATION, before any target should even remotely consider that possible, using proven technology.

As far as I can see, there is no demonstration mentioned in the article.

This is a case where if you only understand the theory of how phased arrays work, but have no practical experience with radio signals, you may be easily misled to accept this claim unquestioningly. But the good news is you don't need to have any experience with radio or anything else if you simply insist on a demonstration.

Another thing is that the wavelengths of signals down in the ~0 to ~100 Hz range are in the thousands of miles, making sharp focus exceedingly difficult. Radio telescopes operate from the tens of megahertz frequencies on up. So there is a huge difference there, calling once again for a DEMONSTRATION.

#41 - Mon Sep 6, 2010 8:05 PM EDT

REPLY

Deep Thought

Author



Hi Deep Thought. I've received the following comments regarding your information here from someone on our forum. Can you answer these concerns?

No problem.

radio astronomy antennas do not operate anywhere near the ~0 to ~100 Hz band, which is the "party line" on which all living things transmit. Even if a radio astronomy telescope could operate in that band, it would have to sort out signals emitted by your brain from every other living thing in your vicinity, plants included. The need for a demonstration as to how a radio antenna/receiver can pick up a signal from YOUR brain alone, is obvious or should be. We're talking hundreds of miles away, not in some shielded lab.

We're not talking about radio astronomy, other than as a basic guideline to demonstrate the power density that can be received.

With atomic timing and limited interaction of SLF/ELF waves accuracy is pretty high. Across an array of satellites, greater resolution than GPS can be achieved. Each satellite "snapshot" of a band of frequencies would be time encoded. By selecting signals that arrived in a particular "window" of time, they could be associated with a particular individual. This "window" of time is the time it would take for an ELF signal to reach a given satellite from a particular location. By cross referencing a signal and its power at each satellite, the transmitting location on the surface of the earth can be ascertained.

After this point, it becomes about both monitoring known frequencies and new frequencies that arrive during the "window". There will be a finite amount of signal patterns, that represent the activity of different neural networks. These neural networks, hence their emissions, are generalizable. By monitoring a range of these signal patterns, activity, thoughts, feelings, mental images (spatial reasoning), auditory, olfactory and even images from

the eye can be recorded.

Thirdly, brains are NOT - repeat NOT - at all like stations on a radio dial. Inside the brain, each nerve fires bursts of pulses. The pulsing CONSTANTLY CHANGES. So all living things' emissions are changing all the time. There is no "single frequency" your brain signals can be identified by.

In a sense he is right, there is no single station that you can tune to. Instead, you need to change your type of tuner. Rather than once that selects a particular frequency, you replace it with one that uses time and listens on all frequencies. This allows you to tune into locations in 3D space. By monitoring the change in timings of received signals, you can project a heading and change the location to listen to.

*The total of nerve activity reaches the surface of the skull as ELF varying voltages in the ~0 to ~100 Hz range. For even a huge phased array antenna to access different nerves *IN 3D* from hundreds of miles away is such a phenomenal feat that it must be DEMONSTRATED and the demo published by a mainstream ORGANIZATION, before any target should even remotely consider that possible, using proven technology.*

Good luck with that. I don't think the NSA and GCHQ will have an open day anytime soon. If he succeeds, tell him to give me a shout!

I think the issue here is that this guy doesn't really understand digital signal processing to well. He seems to have some knowledge of standard radios, but is missing what is achievable in a High Performance Computing scenario.

#41.1 - Tue Sep 7, 2010 2:52 AM EDT

1 vote

REPLY

John Allman Deleted

Don Brown-2301722 Deleted

John Allman Deleted

John Allman Deleted

Don Brown-2301722 Deleted

Don Brown-2301722 Deleted

John Allman Deleted

Derrick-2281637 Deleted

Derrick-2281637 Deleted

A Brenner Deleted

Don Brown-2301722 Deleted

Don Bailey-2307952

I hope you can help me with a theory. It is my belief phased arrays are far more capable than you give them credit for. If you think about the bandwidth requirements, resolution requirements and as you stated the low frequency requirement, synthetic components of long wave created by constructive wave interference as a pile, not a true wave by modulation using a high frequency carrier makes sense. Credible complaints by victims indicate bandwidth requirements that far exceed what low frequency can do.

I don't know if you are aware but Dr. Ross Adey proved the thermal effects of the wave lengths you described at the bio cellular level. In fact at first they could not understand how the waves could propagate through the human body at such low power levels. They later discovered it was because the central nervous system amplified the signals at the cellular level because it identified the signals as its own. Suffice as to say there is far more evidence that you are correct in your calculations about remote neural monitoring. Here are links to a couple of web sites reprinting the law suit between the National-Security-Agency and John-StClair-Akwei. In fact there is too much evidence for me to blog here

without going into my research papers.

#53 - Thu Sep 9, 2010 4:25 PM EDT

REPLY 1 vote

Deep Thought

Author



I hope you can help me with a theory. It is my belief phased arrays are far more capable than you give them credit for. If you think about the bandwidth requirements, resolution requirements and as you stated the low frequency requirement, synthetic components of long wave created by constructive wave interference as a pile, not a true wave by modulation using a high frequency carrier makes sense. Credible complaints by victims indicate bandwidth requirements that far exceed what low frequency can do.

There is more than one way to skin a cat. To send an image using SLF/ELF is rather like sending commands to a monitor to control pixels. You can send a basic image as a range of frequencies and the brain will fill in the gaps.

You compensate for bandwidth limitations by opening channels. Given the low power transmission by the human brain, with little amplification due to the size of an axon, creating a corresponding phased array within the scope of a satellite is pretty straightforward. It could have millions of transmitters.

Just keep in mind that the objective is not to transmit data, but rather electrically stimulate the brain to reproduce sound, images, thoughts, feelings, muscle contractions, etc. Thus, you need to think of bandwidth in different terms.

I don't know if you are aware but Dr. Ross Adey proved the thermal effects of the wave lengths you described at the bio cellular level. In fact at first they could not understand how the waves could propagate through the human body at such low power levels. They later discovered it was because the central nervous system amplified the signals at the cellular level because it identified the signals as its own.

Whilst it works in ideal scenarios, the frequencies required and the power density required at the skull is too difficult to maintain. If you entered a shopping center, or went by the underground, the power density at street level required to compensate would be fatal.

Also, the Frey effect does not allow minds to be read. It is a one way system. It stimulates the cochlea into reproducing sounds by mechanical vibration. Thus, no images or any other type of information can be sent or received from a target.

#53.1 - Thu Sep 9, 2010 6:06 PM EDT

3 votes

REPLY

cyrus redbluff Deleted

Don Bailey-2307952

Deep Thought here is some additional research I believe you will be interested in:

US Patent # 3,951,134 "Apparatus and Method for Remotely Monitoring and Altering Brain Waves" Remotely meaning with no wires attached.

William Ross Adey, Fellow, IEEE

Frequency and Power Windowing in Tissue Interactions with Weak Electromagnetic Fields

The Article appeared in the Proceedings of the IEEE, Vol 68, No. 1, January 1980

The few notes about victims: One of the victims I talked to was a geologist trying to escape the operatives whom tracked him. He informed me they could penetrate 150 feet of salt water and geo physical structures.

#55 - Sat Sep 11, 2010 10:53 PM EDT

REPLY

Deep Thought Deleted

Author



Deep Thought

Author



US Patent # 3,951,134 "Apparatus and Method for Remotely Monitoring and Altering Brain Waves" Remotely meaning with no wires attached.

William Ross Adey, Fellow, IEEE

Frequency and Power Windowing in Tissue Interactions with Weak Electromagnetic Fields

The Article appeared in the Proceedings of the IEEE, Vol 68, No. 1, January 1980

I've seen this patent before. The problem, in a practical scenario, is that it takes an array of transmitters to stimulate the brain into producing sensible information. As a result, it is an unfeasible solution.

The few notes about victims: One of the victims I talked to was a geologist trying to escape the operatives whom tracked him. He informed me they could penetrate 150 feet of salt water and geo physical structures.

I know of one test conducted on the London underground, from Westminster to Waterloo via the Jubilee line. Take a look at the walls in a typical tunnel at Westminster:

http://farm4.static.flickr.com/3418/3233238607_21be461661_o.jpg

Now take a look at how far down you need to travel to get there:

http://upload.wikimedia.org/wikipedia/commons/f/fa/Escalators_at_westminster.jpg

The Jubilee line is in the deep-level station, some 39m below the sub-surface stations. I would guess that puts the depth at least around 50m (150 ft).

Apparently, the system worked fine and could both read and write in real-time.

It also worked fine under the Thames to Waterloo from Westminster. That's about 20-23m (60-69 feet) of water, about 10-20m (30-60 feet) of Earth and a steel encased tunnel similar to the first picture. That's about 30-46m (90-129 feet).

Only SLF/ELF waves can penetrate surfaces like that and not be attenuated much. As for the claims of the geologist, I don't have anything to confirm his 50m (150ft) penetration of water claim, but I can confirm at least 20m (60ft).

#55.2 - Sun Sep 12, 2010 11:21 AM EDT

1 vote

Don Bailey-2307952 Deleted

REPLY

Ernest T Bass

do you have an answer for this persons critique?

"What I found amusing was deepthought's statement, *We can see from this* [20-plus-page] scientific *paper* that "the charge per square centimeter [in the human brain] is around 22-29 microamperes."

Nothing in the referenced paper had anything to do with deepthought's claim that the human brain discharges 22-29 microamperes of current per square centimeter.

He was trying to snow the reader. All he needed to do was cite the precise page in this paper on which he found the statement that the human brain discharges 22-29 microamperes of current per square centimeter. Instead, he resorted to cutesy subterfuge.

For the record, microamperes aimed at the thalamic nucleus in the human brain from external sources can induce somatosensory responses, which you will find on NIH sites. Externally-supplied microamps are also used to heal wounds.

I could find nothing on the Internet, however, to support deepthought's claim that the brain discharges microamperage (or nanoamperage) of its own accord, regardless of range. Has anyone else come across a credible source to support his claims?"

#56 - Sat Sep 18, 2010 3:41 PM EDT

REPLY

1 vote

Deep Thought Deleted

Author



Deep Thought

Author



Nothing in the referenced paper had anything to do with deepthought's claim that the human brain discharges 22-29 microamperes of current per square centimeter.

Its a rough approximation given the value ranges in the article, but its a moot point anyway. As to the amperage, at source, we have only models to go by. One that is used often is squid and an action potential has an amperage of **around 6.9 microamps**. So, the estimate in the article is about right.

The following paper

<http://docs.google.com/viewer?>

[a=v&q=cache:vaVA1iQq0GsJ:www.piers.org/piersonline/download.php%3Ffile%3DMDQxMjA4MTAx](http://docs.google.com/viewer?a=v&q=cache:vaVA1iQq0GsJ:www.piers.org/piersonline/download.php%3Ffile%3DMDQxMjA4MTAx)

[MzI2fZvbDFObzJQYWdlMjI3dG8yMzAucGRm+http://piers.mit.edu/piersonline/download.php%3Ffile%3DMDQxMjA4MTAxMzI2fZvbDFObzJQYWdlMjI3dG8yMzAucGRm&hl=en&gl=uk&pid=bl&srcid=ADGEESgRRyoLExtc-n519Rwo_3fJQ8QuNvbgJx85UIPRDrta3Lauw3APx6YSM6IjXEjA-8ylCqTAoul8Ly0JcPvTKlISDL1t12VwJh79hM6VT6sVvdmZcZj4aDpzabvIPx5jqVA4Dont&sig=AHIEtbQIQxnB6K4WvWUm_C8q8ZIM6PZWMg](http://piers.mit.edu/piersonline/download.php%3Ffile%3DMDQxMjA4MTAxMzI2fZvbDFObzJQYWdlMjI3dG8yMzAucGRm&hl=en&gl=uk&pid=bl&srcid=ADGEESgRRyoLExtc-n519Rwo_3fJQ8QuNvbgJx85UIPRDrta3Lauw3APx6YSM6IjXEjA-8ylCqTAoul8Ly0JcPvTKlISDL1t12VwJh79hM6VT6sVvdmZcZj4aDpzabvIPx5jqVA4Dont&sig=AHIEtbQIQxnB6K4WvWUm_C8q8ZIM6PZWMg)

from the Czech Defense Department shows that humans do emit detectable radiation in the SLF/ELF radio bands. The only potential source is the firing of neurons. Its the only electrical activity there is.

As to detectability at orbital distances, its just a matter of scaling up the experiment performed by the Czech Defense Department. The paper itself notes that one potential application is the detection of miners after a cave-in. It just fails to note that fine analysis of those signals reveals the neural networks that made them and that those patterns reveal thought activity.

Its just basic signals intelligence from compromising emanations.

The critique is focusing on the wrong thing, which shows that whoever wrote it had done little or no research into the subject. They're looking to muddy the waters a little bit.

[#56.2](#) - Sat Sep 18, 2010 4:36 PM EDT

REPLY 

unquellable

If it can be done, our US military are the ones who probably invented the technology. Men Who Stare At Goats. I believe that our thoughts exit our brain somehow and some people have the ability to pick up the thoughts of others. Your article is very interesting, but way over my head.

[#57](#) - Wed Oct 20, 2010 11:49 PM EDT

REPLY  2 votes

Deep Thought

Author 

| *If it can be done, our US military are the ones who probably invented the technology.*

Given the amount of DoD SIGINT groups that visit my page and the fact that none have come to my door. It looks like they're trying to keep this under wraps.

[#57.1](#) - Thu Oct 21, 2010 1:33 AM EDT

1 vote

unquellable Deleted

REPLY 

Don Bailey-2307952 Deleted

yudo74568

If they can receive individuals they can also transmit to thereby control individuals.

[#59](#) - Tue Dec 28, 2010 12:40 AM EST

REPLY 

temporal relief Deleted

enigmanamaly

Hello although the technology is very impressive and I'm sure is much more advanced than one is allowed to state for classified reasons. Unfortunately i have been terrorized victim of this mind reading technology for the past 4 years. it has been an absolutely nightmare. I understand alot of what is being mentioned about this subject. Because of having to be forced in trying to find out and isolate just what exact mind reading technologies that are being deployed against me. or an implant because i had a neck operation in 1997 syptoms include continuous voice to skull 24/7 - some sort of remote neural monitoring - 2 way communication - see what i see -- hear what i hear -- and the application of groin pains - and sharp heart pains done at will - forced sleep - forced insonia - My main question to you Deep thought is it is being done remotely and and im sure via satellite - artificial intelligence super computers are running the show. does the technology that you are referring to able to read what i picture in my head and reply to me what it is before i actually think of what it is . and if so then it is in fact capable of invading dream state or even altering it ???? correctly if

im wrong only a computer would be able to decode evoked potentials from what i may picture in my head. is there a way to actually produce the picture onto some operators monitor screen and be visually readable. Last question is there any way to detect or scramble this system. Any help in this matter or a point in the right direction would be greatly appreciated I almost possitive its synthetic telepathy Thank You

#61 - Wed May 25, 2011 6:05 PM EDT

REPLY 

Deep Thought

Author



Hello although the technology is very impressive and I'm sure is much more advanced than one is allowed to state for classified reasons.

It is not classified where I am. In addition, it lost its classified status the moment it was used for human experimentation. Such an act would invalidate the project from federal funds in its entirety.

Legally, the system and its operators no longer work for the US government. Any funds directed to the project are illegal and constitute financial fraud.

In terms of its use by additional governments (i.e. the UK), such actions are unlawful and again not protected by classification.

Given that I am publishing this for over a year, without any arrests being made, demonstrates that this is correct.

or an implant because i had a neck operation in 1997

Implants are a decoy and extremely impractical. So, you can rule this out.

My main question to you Deep thought is it is being done remotely and and im sure via satellite - artificial intelligence super computers are running the show.

Yes, its distributed supercomputer network. Our analysis shows that it is located at Echelon sites. So, if you are in Europe that would be Menwith Hill, UK or Morwenstow. I am not opposed to the supercomputer being located elsewhere, but given the speed and the physical constraints imposed by physics, the Supercomputer would need to be located relatively close to a downlink site.

See here:

<http://www.fas.org/irp/program/process/echelon.jpg>

does the technology that you are referring to able to read what i picture in my head and reply to me what it is before i actually think of what it is .

There is a delay of about 150ms in terms of responding to external stimuli. Thoughts or images which originate in the mind are much faster. The A.I. uses a prediction algorithm, almost like your phone's predictive text, to complete sentences. It can appear that it knows what you are thinking, but you would not say that of your phone.

In short, its a clever trick. It will get the sentence correct much of time based on your use of words and the context of the conversation.

Another method is that the A.I. actually leads you into saying certain words or phrases. Thus, it looks like it knows what you are about to say, but it is actually quietly prompting you.

and if so then it is in fact capable of invading dream state or even altering it ????

Yes, it can interact and even guide very vivid dreams. It has direct access to the visual cortex and can drop images onto regions.

The system it uses is almost like certain collaborative software used in business. Its almost like a 3D version of netmeeting (Bitwise, Team viewer, etc) which allows the A.I. to interact with you in your spacial reasoning.

For example, you can create a ball in your mind and the A.I. can take that ball and begin to play basketball. You can also use certain gestures in your mind and have the A.I. respond to them. One example is that you indicate a certain direction and you will see a little man, in your mind, run in that direction asking "what's over here?".

One of the funny ones is when the A.I. runs up to each of your eyeballs and tries to look out.

correctly if im wrong only a computer would be able to decode evoked potentials from what i may picture in my head. is there a way to actually produce the picture onto some operators monitor screen and be visually readable.

Yes. Given that the A.I. can interact with your internal visualization capabilities, it means that information is converted in real-time to a digital equivalent. That said, merely replaying that to the mind is easy, converting it to an image an operator could watch would be more difficult.

Let's say I think of a ball. There are two ways that could be show to an operator. The first is where the ball I think of is represented by an image of a ball drawn from a database. The second way is a direct interpretation of how I visualize a ball.

I would say the latter exists also.

Last question is there any way to detect or scramble this system. Any help in this matter or a point in the right direction would be greatly appreciated I almost possitive its synthetic telepathy Thank You

Detection requires a very sensitive receiver. That said, as it is an electromagnetic signal, it is a vector field. As a vector field, it will be strongest at the source and fall off in signal strength the farther it goes. So, whilst it may be difficult to read at ground distance, it should be very strong at the source.

There are a limited number of places it could be transmitting from. A weather balloon with low frequency gear should give good readings at 100,000 feet (33km).

If the transmitter was located in the UK, on the ground, driving around looking for sources of low frequency EM should betray the source in a matter of hours.

Bottom line, its a signal and it can be detected. Its just a matter of a team with the appropriate gear doing the work.

As for jamming the signal, don't bother. It would only harm you.

Once detected, measures can be taken to destroy the transmitter and/or downlink stations.

#61.1 - Wed May 25, 2011 8:23 PM EDT

1 vote

enigmanamaly

I thank you Sir for your prompt reply and it was very helpful. If you wouldn't mind i if i can pick your brain for just a little. Seeing how mine has been picked for the last 4 years by this technology. All though im very impressed how far A.I. Technology has come. And the way it truly makes it appear as if a human is the one watching you. I figured it out by asking some very simple questions from time to time that only a human would have experienced. The fact its very sophisticated and designed to make the appearance that it is organic in nature makes it very hard to prove. I have never had a delusional thought or heard a voice in my head my whole life. until this hit me 4 years ago but considering the voices in the head are round the clock and are not random. but statistics show auditory hallucinations usually appear in people in there 20's im 48 years old. What amazes me is that the AI knows what i smell, knows what i feel in my pocket when i put my hand in it and even knows when im craving a beer. So correct me if im wrong the satellites is reading evoked potential send in somewhere else for decoding so what would keep it from doing all of this from the satellite? So there has to two separate systems involved here correct. A radio telescope cant sent voices to the head by passing the ears. because if can have head phones on playing music full blast and i still hear the voices. voice does not travel in a SLF or ELF frequency ? The fact that i was even hearing it while i was getting an MRI and also when i was at the bottom of a swimming pool should eliminate some of the standard electronic harassment technology which one exactly im not sure. I don't want to stray to much off of your original posting. And again i really appreciate your feedback. And im sure this technology is a key part of DOD's life Log project or the Julianne mckennedy's Project designed to induce stress using quazi subliminal V2K or synthetic telepathy. Im sure that prolong use of this on the body and mind is not very healthy But mental abuse is much more damaging to the psyche than physical abuse i would rather be beat physicaly Your last reply helped definitely it kept me from approaching a well respected neuro surgeon and accusing him of putting an implant in my neck Something deep inside told me that there wasn't like you said its a decoy. but the overwelling speed of the system and neuro monitoring makes it appear that i was hard wired. I have 2 more question's if i may So is this a fire and forget system? i mean a human acquirers target is there any human inter action or monitoring of the process after the brain is finger printed? Is the system that confident? there would have to some sort of red flagging of the system if things get a little out of control? Again i thank you for your feedback if this is not the forum for this kind of discussion you can email me at dteegardin@hotmail.com for correspondence i would compensate you for your valuable time Sincerely David Teegardin

#61.2 - Fri May 27, 2011 4:23 PM EDT

Deep Thought

Author 

What amazes me is that the AI knows what i smell, knows what i feel in my pocket when i put my hand in it and even knows when im craving a beer.

Its just a state machine. It leverages your own recognition system and responds with what you identify.

So correct me if im wrong the satellites is reading evoked potential send in somewhere else for decoding so what would keep it from doing all of this from the satellite?

It is just recording patterns of radio signals. Those patterns are relayed from the receiver to a supercomputer and back again. There wouldn't be enough room on a satellite for the supercomputer and, in terms of the length of time it would take to relay to a ground station, there would be no need to design a supercomputer that could remain in orbit.

So there has to two separate systems involved here correct. A radio telescope cant sent voices to the head by passing the ears. because if can have head phones on playing music full blast and i still hear the voices. voice does not travel in a SLF or ELF frequency ?

That's not entirely true. In terms of a single signal in the sub-1000Hz range there is limited amount a bandwidth in which a signal can be modulated.

When using these frequencies to interface with the brain, thousands of signals can be layered onto the antenna at once. Each of those signals stimulates a neuron or neuron cluster into firing. This can be perceived as an image, feeling, thought, etc.

There is no information modulated onto the signal, the only function of the signal is to cause a neuron to fire. Thus, you do not experience "data", but rather a "stimulated hallucination".

So, the transmitter is working on the principle of a frequency modulated music box, rather than AM modulation.

The fact that i was even hearing it while i was getting an MRI and also when i was at the bottom of a swimming pool should eliminate some of the standard electronic harassment technology which one exactly im not sure.

It is low frequency radio, once you get the principle I have mentioned, it will become easier to understand.

Im sure that prolong use of this on the body and mind is not very healthy But mental abuse is much more damaging to the psyche than physical abuse i would rather be beat physically

That's true. Also, given that the US is using the system on the citizens of allied nations, we really need to question at this point, if this is an act of war.

Its really no different to shooting to people.

If it is an act of war, who authorized it???

Your last reply helped definitely it kept me from approaching a well respected neuro surgeon and accusing him of putting an implant in my neck Something deep inside told me that there wasn't like you said its a decoy. but the overwelming speed of the system and neuro monitoring makes it appear that i was hard wired.

Its just radio, a complex radio, but radio nonetheless. In tests response times seem to be anywhere from 50-150ms. That puts the supercomputer within about 1000 Km of your location. In Europe, that would be the UK.

I have 2 more question's if i may So is this a fire and forget system? i mean a human acquirers target is there any human inter action or monitoring of the process after the brain is finger printed? Is the system that confident? there would have to some sort of red flagging of the system if things get a little out of control?

Its a datacenter, with an automated system. The majority of things the A.I. would deal with, but there are human objectives which no doubt require management meetings and modification of the A.I.'s tasks. That will occur at different intervals given the value of the target. The A.I. can raise tickets with the support team, but it is not in the habit of questioning orders.

#61.3 - Fri May 27, 2011 6:45 PM EDT

1 vote

Deep Thought

Author



*Again i thank you for your feedback if this is not the forum for this kind of discussion you can email me at dteegardin@hotmail.com for correspondence i would compensate you for your valuable time
Sincerely David Teegardin*

Feel free to ask any questions here. Just find the appropriate article and post your question. I will get round to answering it.

#61.4 - Fri May 27, 2011 9:18 PM EDT

REPLY

robin-6

Fascinating. I've had this tracked as I said I would. Either you guys are the greatest sci-fi writers of our time--or you are indeed tuned in from a level of science not privy by the average joe. I think anything is possible and I am sure there are many discoveries in which we haven't a clue about the technology other than in our wildest Sci-fi imaginations. Maybe this explains all of Obama's gaffes and slight errors over his G8 trip. ;-)

Actually, it seems reasonable to assume the probability always has existed that we will be doomed by our own trap door of technology, and this type of stuff just raises those probabilities factors that much more.

WHO are they doing this to? Why would you be singled out Enigma? Are you a lay person, classified person, in the loop the worldwide political stage or a scientist? What would turn the radar on to just anyone at random? What wrong place was any of the TS subjects located at-- that they fell victim?

#62 - Fri May 27, 2011 7:49 PM EDT

REPLY

1 vote

Deep Thought

Author



| *WHO are they doing this to?*

The individuals that are being attacked for no reason are not connected in anyway, nor do they have a connection in terms of being a valid threat.

| *Why would you be singled out Enigma?*

Most likely that they would have little influence. They are simply defenseless.

| *Are you a lay person, classified person, in the loop the worldwide political stage or a scientist?*

Not stated.

| *What would turn the radar on to just anyone at random?*

It seems to do with capacity. As the satellites move over non-conflict regions they are pretty much idle. This spare capacity is used for various experiments.

Spy satellites tend to be in polar orbits, so as they move across Northern Europe or North America, there is very little to do

| *What wrong place was any of the TS subjects located at-- that they fell victim?*

They were in an area of under used capacity and a demographic area where such technology would not be understood.

Although, there are exceptions to this that have exposed the program.

#62.1 - Fri May 27, 2011 8:14 PM EDT

robin-6

Thank you for your time and response. How did you come across this info? Maybe you've stated already here and I need to re-read and re-cap the entire seed. I did re-read the information you originally wrote as to remember all this correctly. If I need to do that first, let me know. I'd rather not waste your time. I'm good with being directed when it's valid and warranted.

#62.2 - Fri May 27, 2011 8:43 PM EDT

Deep Thought

Author 

| *How did you come across this info?*

The system has been reverse-engineered.

#62.3 - Fri May 27, 2011 9:05 PM EDT

1 vote

REPLY

jwc2blue Deleted

jwc2blue Deleted

enigmanamaly

Believe it or not im just a hard working workaholic Single father of two teenage girls (sstraight A students) Ive been accused of being to logical and over analyze things but i keep to myself. im not religioius im more spiritual i believer in a higher power. What really makes all this very confusing is the fact i have NEVER had an single enemy my whole life a loner by trait. Hell i never seen the inside of bar until i was 38 years old after my divorce. The fact that i was work in engineering R&D for a company for 18 years gave this AI a reason to try to convince me that i was a surveillance platform for some unknown government. And its very clever in making it look that. I have no political ties or a political party. But i guess as this AI says all the above makes me the perfect target. The fact that this systems objective was to take me out of my last two jobs and keep me from trying to gain employment, removed me out of my transportation But someone physical sabotaged both my truck (sand in transmission and motorcycle sugar in gas tank told me its not all in my head. and steps up its program or as they say "CLUBBING there monkey" when ever i try to do anything constructive to get back on my feet again . Makes it very difficult it will ramble on in my head all night back off in the morning so it makes me sleep until afternoon. Which makes it appear as if its some kind of disability scam they tell me that i will never work again for the rest of my life. and that we have been living on your disability for the last 31/2 years. I am hoping its all bullS*** but the fact this is produced by some government makes me stop and wonder . Its designed to induce stress to create some kind medical problems meant to incapacitate and straight out make me look like a schizophrenic very unfair is cruel and unusual punishment period. why are they not using this on drug dealer and gang member who are more deserving of this even though im impressed with the technology being a tech kind of

guy But NO ONE ON THIS PLANET DESERVES TO BE MIND RAPE LIKE THIS NO ONE!

#65 - Sat May 28, 2011 5:38 PM EDT

REPLY

1 vote

Deep Thought

Author



The fact that i was work in enigneering R&D for a company for 18 years gave this AI a reason to try to convince me that i was a surveillance platform for some unknown government.

Surveillance doesn't need to talk...in fact, it defeats the purpose.

Makes it very difficult it will ramble on in my head all night back off in the morning so it makes me sleep until afternoon.

Its well known for this. One aspect is to keep you out of work, the other is that break sleep patterns disrupts the production of neurotransmitters such as GABA leaving you impulsive and on edge.

Its designed to induce stress to create some kind medical problems meant to incapacitate and straight out make me look like a schizophrenic very unfair is cruel and unusual punishment period.

True. It looks like the US and the UK have paid a price over the last several months for this. The source is unknown, but numerous death have occurred that can be interpreted as payback based upon the circumstances.

It also saw the A.I. back off from a particular target within the last few weeks.

I suppose a batter picture will develop in time.

why are they not using this on drug dealer and gang member who are more deserving of this

Obviously, they have a plan which involves the average citizen, although this appears highly compromised now.

#65.1 - Sat May 28, 2011 8:34 PM EDT

REPLY

Non Neocon

My guess is that they may be able to tell what portion of the brain are active and which are less active, but actually reading the thoughts of a person, I seriously doubt they will ever be able to do that.

#66 - Sat May 28, 2011 7:54 PM EDT

REPLY

Deep Thought

Author



My guess is that they may be able to tell what portion of the brain are active and which are less active, but actually reading the thoughts of a person, I seriously doubt they will ever be able to do that.

Its just pattern analysis. Reading words can already be done by other types technology. This technology provides the highest resolution of them all, so its pretty straightforward to build databases of generalizable patterns.

#66.1 - Sat May 28, 2011 8:13 PM EDT

REPLY

enigmanamaly Deleted

robin-6 Deleted

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So i take it that the AI's statements many time a day every day that it has been radiating me every day for a long time and its just waiting for me to get leukemia and die or a brain tumor would hold true?

#78 - Wed Jun 8, 2011 5:23 PM EDT

REPLY

[Deep Thought](#)

Author



No. Its just a wise ass. The radio signal should do no real damage in itself. The energy dissipated is very low and should not cause genetic issues.

If you wish to discuss the A.I., then [please post here](#).

#78.1 - Wed Jun 8, 2011 6:53 PM EDT

REPLY

[enigmanamaly](#) Deleted

Jump to discussion page: [1](#) [2](#)

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